What is Claimed:

1. A device for monitoring wear of dicing saw blade, the device comprising:

a light source to emit light onto an end surface of the saw blade;

a sensor for receiving a reflection of a portion of the light from the end surface of the saw blade; and

a processor coupled to the sensor for determining wear of the saw blade based on an output from the sensor.

2. The device according to claim 1, wherein the sensor determines a distance to the edge of the saw blade based on triangulation.

3. The device according to claim 1, further comprising first focusing means for focusing the reflected light onto the plurality of sensors.

4. The device according to claim 1, wherein the sensor is a plurality of sensors.

5. The device according to claim 4, wherein each of the plurality of sensors determines a respective distance to the edge of the saw blade based on triangulation.

6. The device according to claim 4, further comprising a respective plurality of first focusing means for focusing the reflected light onto the plurality of sensors.

7. The device according to claim 1, wherein the monitoring device is mounted on a cooling block of the saw blade.

8. The device according to claim 1, wherein the light impacts the end of the saw blade substantially orthogonal to an axis of the saw blade.

9. The device according to claim 1, wherein the light impacts the surface of the saw blade substantially normal to a cutting edge of the saw blade.

10. The device according to claim 1, wherein the sensor is a position sensitive detector.

11. The device according to claim 1, wherein the sensor is a CCD detector.

12. The device according to claim 1, wherein the sensor produces an output based on a position of the reflected light on a surface of the sensor.

13. The device according to claim 1, wherein the emitter is a laser diode.

14. The device according to claim 1, wherein the emitter provides a light output having a wavelength of between about 600 to 800 nm.

15. The device according to claim 1, wherein the processor determines blade wear based on a measured distance between the light source and a cutting edge of the saw blade.

16. The device according to claim 15, wherein the processor stores successive wear data from the saw blade in a database.

17. The device according to claim 1, wherein the processor provides a warning output based on a predicted wear of the saw blade, the predicted wear determined from the successive wear data.

18. The device according to claim 1, wherein the predicted wear of the blade is based on a comparison of the successive wear information stored in the database.

19. The device according to claim 1, further comprising a monitor for displaying at least one of i) a wear rate of the saw blade, and ii) an estimated time for replacement of the saw blade.

20. The device according to claim 1, wherein saw blade wear is determined in real time.

21. A method for monitoring wear of a dicing saw blade, the method comprising the steps of:

emitting light onto an cutting edge of the saw blade;

receiving a reflection of a portion of the light from the edge of the saw blade; and

determining wear of the saw blade based on the reflected light.

22. The method according to claim 21, further comprising the step of displaying at least one of i) a wear rate of the saw blade, and ii) an estimated time for replacement of the saw blade.

23. A method for monitoring wear of a dicing saw blade, the method comprising the steps of:

emitting light onto a cutting edge of the saw blade;

receiving a reflection of a portion of the light from the edge of the saw blade;

triangulating a distance to the saw blade base on the reflected light and

determining wear of the saw blade based on the triangulated distance.

24. A device for monitoring wear of dicing saw blade, the device comprising:

means to emit light onto a surface of the saw blade;

receiving means for receiving a reflection of a portion of the light from the surface of the saw blade; and

processing means coupled to the receiving means for determining wear of the saw blade based on an output from the receiving means.

25. The device according to claim 24, further comprising:

display means for displaying at least one of at least one of i) a wear rate of the saw blade, ii) a diameter of the saw blade, and ii) an estimated time for replacement of the saw blade.

26. The device according to claim 25, further comprising memory means for storing the information displayed by the display means.

27. The device according to claim 25, further comprising means for predicting wear of the saw blade.

28. A device for use with a dicing saw to monitor wear of a dicing saw blade, the device comprising:

a light source to emit light onto the saw blade; and

a sensor for receiving at least a portion of the light from the light source via the saw blade, the received portion of the light based on a wear of the saw blade,

wherein the device is mounted on a cooling block of the dicing saw.